CHRONIC KIDNEY DISEASE
A Clinical Action Plan

STAGE	DESCRIPTION	GLOMERULAR FILTRATION (GFR) (mL/min/1.73m²)	ACTION*
At increased risk	Risk factors for kidney disease (e.g., diabetes, high blood pressure, family history, older age, ethnic group)	≥ 90 with chronic kidney disease risk factors	• Screening • Chronic kidney disease risk reduction
1	Kidney damage (protein in the urine) with normal or ↑ GFR	≥ 90	• Diagnosis and treatment • Treatment of comorbid conditions • Slowing progression • Cardiovascular disease risk reduction
2	Kidney damage with mild ↓ GFR	60–89	• Estimating progression
3	Moderate ↓ GFR	30–59	• Evaluating and treating complications
4	Severe ↓ GFR	15–29	• Preparation for kidney replacement therapy
5	Kidney failure	< 15	• Kidney replacement (if uremia is present)

*Includes actions from preceding stages.
Source: K/DOQI

NATIONAL KIDNEY FOUNDATION CLINICAL PRACTICE GUIDELINES

K/DOQI for Vascular Access:

- AVF rates of ≥ 50 percent for incident (new) patients
- AVF rates of ≥ 40 percent for prevalent (existing) patients

HELPFUL KIDNEY DISEASE RESOURCES

- End Stage Renal Disease Quality Initiative web page located at www.cms.hhs.gov/ESRDQualityImproveInit/06_Data.asp on the CMS website
- End Stage Renal Disease Resource Center located at www.cms.hhs.gov/center/esrd.asp on the CMS website

EDUCATION OPPORTUNITY

A training module entitled "Creating AV Fistulas in All Eligible Hemodialysis Patients" developed by the University of Oklahoma College of Medicine, Office of Continuing Education in conjunction with the University of Oklahoma College of Medicine, Tulsa, Department of Surgery is available free of charge from the Medicare Learning Network (MLN). The MLN is the brand name for official CMS educational products and information for Medicare providers. For additional information visit the Medicare Learning Network's web page located at www.cms.hhs.gov/MLNGenInfo on the CMS website. The University of Oklahoma offers American Medical Association (AMA) Physician's Recognition Award (PRA) Category 1 credits at a nominal fee for physicians who successfully complete the training module. To find additional information about AMA PRA Category 1 credits, visit the University of Oklahoma Continuing Medical Education website located at http://cme.ouhsc.edu/CME_on_the_web.htm on the Web.

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CMS
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FISTULAFIRST
National Vascular Access Improvement Initiative

DEPARTMENT OF HEALTH & HUMAN SERVICES · USA

CENTERS FOR MEDICARE & MEDICAID SERVICES

Fistula First Breakthrough Initiative

THE CENTERS FOR MEDICARE & MEDICAID SERVICES is leading the Fistula First Breakthrough Initiative, which is a project designed to address the urgent need to guide patients who have to cope with kidney disease and/or kidney failure toward safer, higher quality access to hemodialysis, or cleansing of the blood, through a fistula. The goal of the initiative is to increase the use of fistulas as recommended in the National Kidney Foundation's Dialysis Outcomes Quality Initiative (K/DOQI) Clinical Practice Guidelines for vascular access.

About 330,000 Medicare patients currently receive hemodialysis, and this number is expected to double by 2010. During hemodialysis, tubes are used to carry the blood between the body and the dialysis machine, which requires the patient to have an access to the bloodstream. For most patients, the best access is a fistula. An arteriovenous (AV) fistula is the surgical joining of a vein and an artery, usually in the forearm, in order to provide an access for dialysis. Fistulas last longer, need less rework or repairs, and are associated with lower rates of infection, hospitalization, and death.

The most critical component of this initiative is partner involvement and you can help!

"The Breakthrough Initiative reflects a clear, immediate opportunity to substantially improve the health of Americans who need kidney dialysis or transplantation. It illustrates how CMS can collaborate with health professionals, patients, and other partners to have significant impact on the quality of medical treatment.

Fistulas are the 'gold standard' for establishing access to a patient's circulatory system in order to provide life-sustaining dialysis, with good reason. Now we're going to work together to make them the standard of care for Medicare beneficiaries."

Mark B. McClellan, M.D., Ph.D.
CMS Administrator

PRIMARY CARE PRACTITIONER
What Primary Care Practitioners Can Do

- Become familiar with the National Kidney Foundation Chronic Kidney Disease (CKD) Clinical Action Plan.
- Refer patients to a nephrologist when they reach Stage 4 (GFR between 15 and 29) to prepare for kidney replacement therapy and access placement.
- Educate patients on CKD and self care to delay onset of kidney failure.
- Know how to calculate an adult GFR:

  GFR = (mL/min/1.73 m^2) = 186 x $(PCR)^{-1.154}$ x $(Age)^{-0.203}$ x (0.742 if female) x (1.210 if African American)

  OR

  Use a GFR calculator, which can be found at www.kidney.org/professionals/KLS/gfr.cfm on the Web.

See back section of brochure for education opportunity.

SURGEON
What Surgeons Can Do

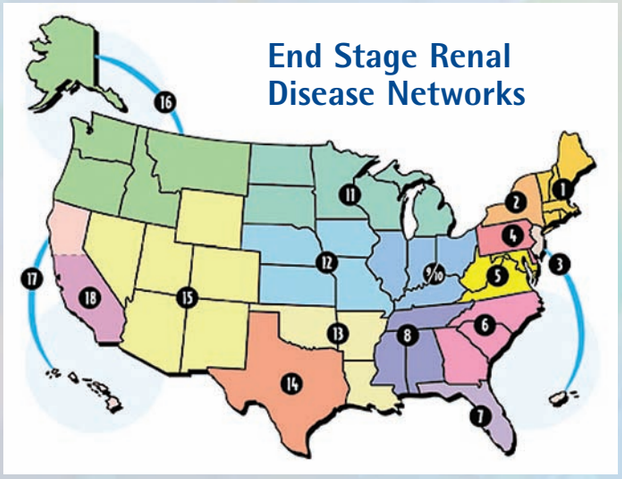
- Use a full range of appropriate surgical approaches.
- Place secondary AVFs in patients with AV grafts.
- Place AVFs in patients with catheters, when feasible.
- Establish processes for monitoring and maintaining AVFs to ensure adequate access function.
- Review outcomes feedback to guide practice.

See back section of brochure for education opportunity.

NEPHROLOGIST
What Nephrologists Can Do

- Work with local primary care practitioners or hospitals on early patient referral.
- Foster relationships with local surgeons for early vascular access referrals.
- Refer patients for vessel mapping.
- Refer patients to surgeons with best AVF outcomes.
- Provide AVF results profiles (feedback) to local surgeons.
- Support tracking systems at facility level to review catheter and AV graft patients.
- Embrace the role of renal team leader.

See back section of brochure for education opportunity.



To find more information about quality improvement initiatives, visit the Forum of End Stage Renal Disease Networks located at: **www.esrdnetworks.org** and Fistula First National Vascular Improvement Initiative located at **www.fistulafirst.org** on the Web.